

4 determining sign bits associated with the plurality of resultant signal values; and
5 providing the sign bits as the pseudo-random number sequence.

1 3. (Previously Amended) The method of claim 6, wherein the generating of the
2 pseudo-random number sequence comprises:

3 computing a mean signal value for a first region of the data set;
4 computing a mean signal value for a second region of the data set;
5 performing an arithmetic operation on the mean signal value of the first region and the
6 mean signal value of the second region to produce a resultant signal value;
7 determining a sign bit of the resultant signal value; and
8 providing the sign bit as a portion of the pseudo-random number sequence.

1 4. The method of claim 3, wherein the performing of the arithmetic operation
2 includes computing a difference between the mean signal value of the first region and the mean
3 signal value of the second region.

1 5. The method of claim 4, wherein each region of the data set includes a predefined
2 image within the frame.

1 6. (Previously Amended) A method for improving detection of a watermark,
2 comprising:

3 generating a pseudo-random sequence of numbers based on data associated with a data
4 set;

5 producing the watermark by (i) computing a data block having an amplitude, (ii)
6 computing a secondary data set, each pixel of the secondary data set having a predetermined
7 signal value, and (iii) multiplying the pseudo-random number sequence, the amplitude and the
8 secondary data set to produce a result operating as the watermark; and
9 embedding the watermark into the data set.

1 7. The method of claim 6, wherein the amplitude for the watermark is computed
2 through adjustment of a plurality of parameters including frame differences.

1 8. A method for extracting a watermark from a video sequence, comprising:

2 receiving the video sequence having a first frame embedded with a watermark; and
3 recovering the watermark within the first frame through analysis of intensity differences
4 between the first frame of the video sequence and a second frame of the video sequence.

1 9. The method of claim 8, wherein prior to recovering the watermark, the method
2 further comprises:
3 computing a pseudo-random number sequence using the random number generator seed.

1 10. The method of claim 9, wherein the recovering of the watermark includes:
2 computing a sum for products of (i) differences between watermarked intensities of the
3 first frame and the second frame of the video sequence and (ii) corresponding elements of the
4 pseudo-random number sequence.

1 11. The method of claim 10, wherein the recovering of the watermark further
2 includes:
3 computing a products of (i) a mean value for the differences between watermarked
4 intensities of the first frame and the second frame of the video sequence and (ii) a sum of the
5 pseudo-random number sequence.

1 12. The method of claim 11, wherein the recovering of the watermark further
2 includes:
3 subtracting (i) the product of the mean value for the differences between watermarked
4 intensities of the first frame and the second frame of the video sequence and the sum of the
5 pseudo-random number sequence from (ii) the sum of products of the differences between
6 watermarked intensities of the first frame and the second frame of the video sequence and the
7 corresponding elements of the pseudo-random number sequence.

1 13. Cancelled.

1 14. Cancelled.

1 15. Cancelled.